

TB Nurse Case Manager Survey

Introduction

Indiana is below the national average (3.8 cases per 100,000) for the rate of TB cases reported each year and it is considered a low incidence state (a rate of less than or equal to 3.5 TB cases per 100, 000). Since TB cases are not as common in Indiana compared to other states, TB guidelines and best practices are not used as often by local health departments (LHDs). Therefore, the purpose of this survey was to find out the TB educational and training needs of LHDs.

It was anticipated that the results of this study will assist Indiana State Department of Health (ISDH) TB/Refugee Health Division personnel in helping to meet LHD TB educational and training needs. In addition, results of the study were made available to LHDs.

Methods

Subjects

After consultation with ISDH TB/Refugee Health Division personnel it was determined to target the survey to LHDs' TB nurse case managers. However, the distribution list provided by ISDH TB/Refugee Health Division for those individuals also had non-LHD TB nurse case managers on it. Therefore, non-LHD TB nurse case managers also received this survey (N=168).

Survey

The online survey was developed by using a health program planning reference book, input from the above listed ISDH personnel, and two existing needs assessments.

Data Collection Procedures

Email addresses for TB nurse case managers for all 92 local health departments in the state of Indiana were obtained from ISDH above listed personnel. An invitation email was sent to 168 TB nurse case managers and guests announcing the online survey on SurveyMonkey.com with the option to withdraw from the mailing list.

Analysis of the data

Upon close of the online survey located on SurveyMonkey.com on 8/20/10 (original close date was 8/19/10), most of the data was analyzed via SurveyMonkey.com but open ended questions were hand tabulated by the health educator.

Results

Response rate

Of the 168 surveys distributed, 41 respondents responded surveys and 37 completed surveys for a response rate of 24.4%. The questionnaires were sent to local health departments and related guests. When asked who completed the survey, 34 (82.9%) responded by saying local health department nurse, another 3 (.07%) indicated infection control staff, one (.02%) indicated a health educator, and the remaining respondents (3) left this question blank.

Question-by-question analysis

The first preliminary question asked the **TB nurse case managers what was their age group**. The **majority of the respondents were 50-64 (n=20, 51.3%) and 25-49 (n=18, 46.2%)**. One (2.6%) respondent was 65 or older and zero (0%) respondents stated they were 24 or younger. The other two respondents chose not to answer this question.

The second preliminary question asked the **TB nurse case managers what county in which they work**. **Thirty-three of the ninety-two (36%) counties in Indiana were represented**. One respondent chose not to answer this question.

The third preliminary question asked the TB nurse case managers what **local health department** they **represented**. **Thirty-three of the ninety-two (36%) counties in Indiana were represented**. One respondent chose not to answer this question.

The most frequent response to the fourth preliminary question “**what percentage of time was spent working on TB-related activities** (e.g. TB testing, treatment, education, or surveillance)” was **10-25% (n=12, 30.8%)**. The second most frequent response was **26-50% (n=11, 28.2%)**. The third most frequent response was **10% or less (n=10, 25.6%)**. The lowest most frequent response was 51-75% (n=3, 7.7%) and 76-100% (n=3, 7.7%). The other two respondents chose not to answer this question.

The **average amount of years of tuberculosis experience respondents** had were **10.23 years** with two respondents chose not to answer this question. The final preliminary question was stated earlier in regards to who completed the survey.

Question number one asked respondents to **identify the major challenges** they faced in **TB control** work. For each area listed giving each area a rating from 1 – 5 with 1 being the least challenging, 5 being the most challenging, or the respondent could choose not applicable (N/A). The following areas are represented on this question with the most frequent responses listed below:

- Proper diagnosis of TB was given a rating of 1 and not considered a major challenge (n=9, 25.0%) or a neutral response (n=9, 25.0%) of a rating of 3 was the most frequent responses for this question.

- Initiation of treatment therapy most frequent response (n=9, 23.7%) with a rating of 2 and this area opposed less of a challenge for most respondents.
- Patient HIV status was given a rating of 1 and not considered a major challenge (n=12, 32.4%) for most respondents.
- **Patient adherence with treatment regimens was given a rating of 4 and was considered a major challenge for most respondents (n=10, 26.3%).**
- Performing effective DOT got a rating of 2 and it is considered not a challenge from most respondents (n=10, 27.8%).
- Interactions with private sector physicians area was giving a rating of 1 and not a challenge for majority of the respondents (n=11, 29.7%).
- TB patient interviews was giving a rating of 1 and considered not a challenge area for most respondents (n=16, 42.1%).
- Working with patients from different cultural backgrounds was giving a rating of 3 and a neutral response (n=10, 26.3%) was the most frequent response.
- Working with patients with drug and/or alcohol abuse problems was giving a rating of 2 and it was considered less of a challenge (n=12, 31.6%) area from most respondents.
- Contact elicitation, investigation, and follow-up was given a neutral response (n=10, 26.3%) and a rating of 3 was the most frequent response.
- When to expand contact investigation and use of the concentric circle approach most frequent response (n=10, 26.3%) was a rating of 2 and it was considered less of challenge area.
- Completion of therapy for latent TB infection most frequent response was neutral (n=10, 26.3%) with a rating of 3.
- Developing and implementing screening programs for high-risk populations was not considered a challenge for most respondents (n=11, 29.7%) with a rating of 1.
- Other areas of major concern listed by respondents consisted of being a small health department with one full time nurse, having 90% of their time focused on vaccines, nutritional needs of active TB patients, trying to get physicians to see patients, dealing with indigent patients with other health problems such as diabetes uncontrolled, and seeking out resources for those individuals.

Space for additional comments for this question was provided at the end of the question. To see a complete review of the responses and comments, please see Appendix A. Three respondents chose to skip this question.

When asked how **respondents meet their current TB training needs**. The most **frequent response** was **written materials (n=32, 86.5%)** followed by **off-site courses/conferences (n=27, 73.0%)** was the second most frequent response. The third most frequent response was **computer-based training (n=18, 48.6%)** followed by **in-service meetings (n=15, 40.5%)** for the fourth most frequent response. The frequency of the in-service meetings varied and to get the full listing of these questions please see Appendix A. Four respondents chose not answer this question.

Question three asked **TB nurse case managers to identify any barriers** to getting their **educational needs met** and the **most frequent response was time (n=11, 44%)** followed by **finances (n=5, 20%)**, and **travel (n=3, 12%)** was third most frequent response. To view a complete listing of this answer along with the comments for this question please see Appendix A. Sixteen respondents chose to skip this question.

The next question on the survey was a lickerd scale question to rate the following TB training topics needed for the respondent or their LHD using “1” for most important, “2” for important, and “3” for least important. A summary of this question is a follows:

- Principles of TB control was considered important (n=21, 56.8%) by most respondents.
- Diagnosis and clinical presentation of TB most frequent response was important (n=19, 51.4%).
- New guidelines for IGRA-- interferon gamma release assay was considered most important (n=24, 64.9%) along with TB laboratory methods topic was most important (n=17, 45.9%), too for most respondents.
- Treatment of TB disease (n=19, 51.4%) and Treatment of latent TB infection (n=16, 43.2%) was considered important by most respondents.
- Principles of TB case management (n=16, 43.2%) was considered most important by the majority of the respondents.
- Adherence challenges/DOT (n=19, 51.4%), Legal issues (n=17, 47.2%), Outbreaks (n=16, 43.2%), TB contact investigation principles and methods (n=23, 62.2%), Interviewing skills (n=17, 45.9%), TB screening programs (n=14, 37.8%), Confidentiality (n=17, 47.2%), Patient education (n=23, 63.9%), Cultural competency skills (n=20, 54.1%), Documentation (n=19, 51.4%), Quality assurance (n=15, 40.5%), Working with private providers (n=16, 43.2%), and Developing community outreach/partnerships (n=18, 48.6%) all had the most respondents for an important topic.
- The other topics listed by respondents were treatment if not using four drug therapy, nutrient needs of TB patients, and little training of staff. To view a full listing of responses for this question please see Appendix A. Four respondents chose to skip this question.

When the question was asked to **TB nurse case managers their greatest current TB training need** and **why** the questions varied but the **most frequent responses were updates (n=4, 22.2%)**, **working with**

private providers (n=2, 11.1%), and time (n=2, 11.1%). To view a complete listing of those responses please see Appendix A. Twenty-three respondents chose not to answer this question.

TB nurse case managers most common response (n=19, 57.6%) was to **have the TB Update Regional Meeting separate from discussing other health issues.** Nine (27.3%) TB nurse case managers preferred to have the TB Update Regional Meeting combined. To view a complete listing for this question please see Appendix A. Eight respondents chose to not answer this question.

The final liker scale question on the survey asked respondents to indicate their level of preference for receiving TB training and education for each of the training methods listed with “1” being not preferred to “5” being most preferred. A summary of this question is as follows:

The majority of the TB nurse case managers chose “5” or **most preferred method of TB training and education for meeting/conference--regional or state (n=18, 48.6%), in-person classroom training/workshop (n=13, 35.1%), interactive online course (n=12, 32.4%), self-study--via computer or print materials (n=11, 29.7%), and videoconferences--audio and video (n=9, 25.0%).** The common response for 1 being **not preferred TB training and education method** is **meeting/conference--national (n=20, 54.1%).** To view a full listing of this questions and the comment associated with this question, please see Appendix A. Four respondents chose not to answer this question.

The most frequent response for question seven that asked **if a day of workshop was offered the topics the TB nurse case managers wanted** to see covered was **updates (n=6, 35.3%), overview of TB (n=2, 11.8%), treatment and testing (n=2, 11.8%), TB outbreaks (n=2, 11.8%), and legal issues (n=2, 11.8%).** To view a complete listing of this question please view Appendix A. Twenty-four respondents chose not to answer this question.

The final section of the survey gave respondents an opportunity to make any other comments they wanted concerning TB training needs for their LHD. Those comments can be found at the end of the survey in Appendix A.

Finally, Appendix A provides a “quick glance” of all the data collected with the responses to each of the questions printed on a copy of the survey tool used.

Discussion and Conclusion

The response rate (24.4%) to this online survey was average. It is to be noted that TB nurse case managers were in a busy time of fulfilling other obligations i.e. immunizations that may have affected the response rate. However, the counties that did respond represented small and large areas of population as well as having high to mid to low prevalence of TB cases.

Based upon the results of the study and within the limitations of this study, the following conclusions are made:

1. The majority of the TB nurse case managers spends 50% or less (n=33, 84.6%) of their time on TB related activities.
2. The one major challenge most TB nurse case managers (n=10, 26.3%) face is patient adherence with treatment regimens but also a large minority group of TB nurse case managers (n=9, 23.7%) also thought it was the least challenge they faced with TB control work.

A lot of items for the major challenges TB nurse case managers face in TB control work kind of balanced itself out across the scale meaning some TB nurse case managers chose most challenging to least challenging for the same topic.

However, Interactions with private sector physicians were one of the largest minority vote (n=8, 21.6%) for the major challenge faced by TB nurse case managers although the majority (n=11, 29.7%) of TB nurse case managers stated this item was the least challenging for them.

Also, working with patients with drug and/or alcohol abuse problems was considered a challenge as it was the second largest response (n=8, 21.1%) for this item although the largest amount of responses (n=12, 31.6%) for this item stated it was not as much of a problem.

Finally, one of the second largest responses for developing and implementing screening programs for high-risk populations that it was a major challenge (n=7, 18.9%) although the majority (n=11, 29.7%) of the TB nurse case managers stated that this topic was the least challenging for them.

3. In general, TB nurse case managers are getting their TB training needs met mainly by written materials (n=32, 86.5%), off-site courses/conferences (n=27, 73.0%), in-service meetings (n=15, 40.5%), and video/DVDs (n=11, 29.7%). The frequency of trainings was not asked or given however, in-service meetings frequency was asked and the responses varied from yearly to as needed.
4. Most of the TB nurse case managers barriers had to getting their needs met was centered on time (n=11, 44%), finances (n=5, 20%), and travel (n=3, 12%).
5. The TB training topics most requested by respondents were New guidelines for IGRA--interferon gamma release assay (n=24, 64.9%), TB laboratory methods (n=17, 45.9%), and principles of TB nurse case management (n=16, 43.2%). However, all other TB training topics were viewed as important with patient education (n=23, 63.9%), TB contact investigation principles and methods (n=23, 62.2%), principles of TB control (n=21, 56.8%), cultural competency skills (n=20, 54.1%), treatment of TB disease (n=19, 51.4%), adherence challenges/DOT (n=19, 51.4%), and documentation (n=19, 51.4%) being the strongest topics of importance by the majority of TB nurse case managers.
6. TB nurse case managers stated their greatest TB training need varied but updates (n=4, 22.2%), working with private providers (n=2, 11.1%), and time (n=2, 11.1%) were the most frequent responses however, over half of the respondents (n=23, 56.1%) chose to skip this question.

7. There was an overwhelming response to keep the TB Regional Meetings separate from other topics (n=19, 59.4%) and a minority (n=9, 28.1%) group of respondents wanting to combine the meeting or indifferent (n=3, 9.4%).
8. The majority of TB nurse case managers most preferred TB training and education method was meeting/conference (n=18, 48.6%), in-person classroom (n=13, 35.1%), interactive online course (n=12, 32.4%), live or archived web-based seminar (n=12, 32.4%), self-study (n=11, 29.7%), and videoconferences (n=9, 25.0%) as well as their second most preferred method of training were CD-ROM educational product (n=14, 38.9%) and instructional video/DVD (n=12, 32.4%).
9. Most TB nurse case managers wanted updates (n=6, 35.3%) followed by overview of TB (n=2, 11.8%) and legal issues (n=2, 11.8%) covered in a day of workshop. However, over half of the TB nurse case managers did not answer this question (n=35, 58.5%).

References

- Centers for Disease Control National Prevention Information Network. (2010). *RTMCC Needs Assessment*. Retrieved Summer 2009, from <http://www.zoomerang.com/Survey/WEB22ALRYEGWL4> (survey closed).
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- McKenzie, J. F., Neiger, B. L., & Thackeray, R. (2009). Chapter 4: Assessing Needs. In *Planning, Implementing, and Evaluating Health Promotion Programs: A Primer, 5th Edition* (pp. 79-109). San Francisco, CA: Pearson Benjamin Cummins.

Appendix A

TUBERCULOSIS (TB) NURSE CASE MANAGER SURVEY

Indiana State Department of Health TB/Refugee Health Division

Please circle your age group:

24 or younger (0/0%) 25-49 (18/46.2%) **50-64 (20/51.3%)** 65 or older (1/2.6%)

MISSING (2)

Please indicate the county in which you work:

- Lake (2)
- Bartholomew (1)
- Cass (1)
- Daviess (1)
- Jennings (1)
- Knox (1)
- Howard (2)
- Boone (1)
- Warrick (1)
- Porter (2)
- Grant (1)
- Newton (1)
- Adams (1)
- Delaware (1)
- Hendricks (1)
- Marshall (1)
- Kosciusko (1)
- Hamilton (1)

- Madison (1)
- LaPorte (1)
- Marion (3)
- Rush (1)
- Gibson (1)
- Putnam (1)
- Pulaski (1)
- Vanderburgh (3)
- Scott (1)
- Morgan (1)
- Lawrence (1)
- Clark (1)
- Franklin (1)
- Monroe (1)
- Allen (1)

MISSING (1)

Local Health Department (LHD):

- Lake County Health Department (1)
- Bartholomew County Health Dept. (1)
- Cass County Health Dept. (1)
- Daviess (1)
- Jennings County Health Department (1)
- Knox County Health Dept (1)
- Public Health Nursing (1)

- Boone (1)
- Warrick County Health Dept (1)
- Porter (2)
- Grant County Health Dept. (1)
- Newton County Health Department (1)
- Adams (1)
- Delaware County Health Department (1)
- Hendricks County Health Department (1)
- Marshall (1)
- Kosciusko County Health Department (KCHD) (1)
- Hamilton County Health (1)
- Madison County Health Department (1)
- LaPorte (1)
- Marion County Health Department (MCHD/LHD) (3)
- Rush (1)
- Gibson County (1)
- Putnam County Health Dept. (1)
- Pulaski County H.D. (1)
- Vanderburgh Co. (3)
- Howard County Health Department (1)
- Scott County Health Department (1)
- Morgan County Health Department (1)
- Lawrence County Health Department (1)
- Clark County (1)

- Franklin (1)
- Monroe Co Public Health Clinic (1)
- Ft. Wayne-Allen County DOH (1)
- Retired Gary Health Dept (1)

MISSING (1)

Please circle what percentage of your time is spent working on TB-related activities (e.g., TB testing, treatment, education, or surveillance): 10% or less (10/25.6%) **10-25% (12/30.8%)** 26-50% (11/28.2%) 51-75% (3/7.7%) 76-100% (3/7.7%)

MISSING (2)

How many years of tuberculosis experience do you have? Response Average **10.23**

MISSING (2)

Position:

- Nurse (34)

Variations of above answer:

- Assistant Director, Registered Nurse, Public Health Nurse, Nursing Supervisor, Nurse Manager, Public Health Nurse-TB Control, Communicable Disease Nurse, RN, Program Coordinator, Staff nurse, PHN, RN TB Case Manager, County Health Nurse, Nursing Supervisor, Lead RN, RN Case Manager, and TB Surveillance Nurse
- Infection Control Practitioner (3)

Variations of above answer:

- Infection Control Coordinator and Infection Control/Employee Health
- Health Educator (1)

MISSING (3)

Please take a few minutes to answer the following questions to help us identify and prioritize tuberculosis educational needs in LHDs. This information is confidential and will be used to develop TB training programs.

1. Please identify what you think are the major challenges you face in your TB control work. For each area, please circle the number from 1 – 5, 1 being the least challenging and 5 being the most challenging. If not applicable to your job, circle N/A.

	Not applicable	Least Challenging Most Challenging				
Proper diagnosis of TB	(1/2.8%)	(9/25.0%)	(7/19.4%)	(9/25.0%)	(6/16.7%)	(4/11.1%)
Initiation of treatment therapy	(1/2.6%)	(9/23.7%)	(11/28.9%)	(9/23.7%)	(4/10.5%)	(4/10.5%)
Patient HIV status	(1/2.7%)	(12/32.4%)	(10/27.0%)	(3/8.1%)	(8/21.6%)	(3/8.1%)
Patient adherence with treatment regimens	(1/2.6%)	(9/23.7%)	(5/13.2%)	(9/23.7%)	(10/26.3%)	(4/10.5%)
Performing effective DOT	(2/5.6%)	(7/19.4%)	(10/27.8%)	(8/22.2%)	(5/13.9%)	(4/11.1%)
Interactions with private sector physicians	(1/2.7%)	(11/29.7%)	(6/16.2%)	(8/21.6%)	(8/21.6%)	(3/8.1%)
TB patient interviews	(1/2.6%)	(16/42.1%)	(10/26.3%)	(8/21.1%)	(2/5.3%)	(1/2.6%)
Working with patients from different cultural backgrounds	(2/5.3%)	(7/18.4%)	(8/21.1%)	(10/26.3%)	(5/13.2%)	(6/15.8%)
Working with patients with drug and/or alcohol abuse problems	(4/10.5%)	(4/10.5%)	(12/31.6%)	(6/15.8%)	(8/21.1%)	(4/10.5%)
Contact elicitation, investigation, and follow-up	(1/2.6%)	(5/13.2%)	(9/23.7%)	(10/26.3%)	(8/21.1%)	(5/13.2%)
When to expand contact investigation and use of the concentric circle approach	(3/7.9%)	(8/21.1%)	(10/26.3%)	(8/21.1%)	(5/13.2%)	(4/10.5%)
Completion of therapy for latent TB infection	(1/2.6%)	(8/21.1%)	(8/21.1%)	(10/26.3%)	(7/18.4%)	(4/10.5%)

Developing and implementing screening programs for high-risk populations	(5/13.5%)	(11/29.7%)	(7/18.9%)	(3/8.1%)	(7/18.9%)	(4/10.8%)
Other (please describe)	(8/66.7%)	(0/0.0%)	(0/0.0%)	(0/0.0%)	(1/8.3%)	(3/25.0%)

Other (please describe)

- We are a small health dept. where I am the only full-time nurse so that is difficult at times
- One nurse for all county problems, 90% of my time is with vaccines at this time
- Nutritional needs of active TB patients
- Trying to get MDs to see these pts
- Dealing with patients that are indigent and have other health problems like diabetes out of control. Also trying to find other resources like food/shelter for them.

MISSING (3)

COMMENTS:

- I am new, only 4 months on the job. TB is not my primary responsibility
- If we were to have 3 DOT patients at once, then that makes all of the above more difficult for me to do a good job-due to time restraints. I'm 1 person with many hats to wear.
- We do not have the staff to do a real effective job on TB patients
- Other areas of concern are monetary payment of labs and chest x-rays needed to monitor treatment

MISSING (37)

2. How do you meet your current TB training needs? Please check all of the methods that you use.

In-service meetings (15/40.5%)

Videos/DVDs (11/29.7%)

Off-site courses/conferences (27/73.0%)

Teleconferences (audio only) (6/16.2%)

Written materials **(32/86.5%)**

Computer-based training (18/48.6%)

Other (please describe): (3/8.1%)

(CD-Rom, Internet, webinars)

- Joy Hardacre does our TB updates in our office for all staff

- Telephone consult with ISDH-approved TB specialists
- Utilizing my TB Regional Nurse

MISSING (4)

If you have in-service meetings, how often?

- We meet weekly and discuss TB on an as need basis (1)
- Every 2 years for PPD re-certification (1)
- **Yearly (4)**
- q 2-3 years (1)
- When needed or as new info. is available (1)
- Every 2 years (1)
- 1 (1)
- as needed (1)
- once every few months (1)
- 3-4 (1)
- Bi-weekly(1)

MISSING (26)

3. Identify any barriers you have to getting your educational needs met.

- **Time (11)**

Variations of above answer:

- We have multiple clinics and each demand a large amount of time
- There is never enough time to get everything done that needs to be done for work, especially if it is to be well done. If you try to study something at your desk, there are a lot of interruptions
- Time constraints
- Time is sometimes a barrier-right now we are swamped doing adol. immunizations

- Scheduling conflicts with immunization clinics (1)
- Heavy work load in for public health nurse (1)
- Travel (3)

Variations of above answer:

- 2-4 hour travel time to get to training location
- Travel is sometimes a barrier, again one full-time nurse is a problem if I leave office for training, and distance
- Finances (5)

Variations of above answer:

- Cost of educational opportunities
- Financial-budget cuts
- Lack of funding in the health department due to budget cuts
- Lack of time due to reduced staff again related to budget cuts
- Funding
- Being alone as a one man team (1)
- Other commitments (1)
- Time, appropriate level for program management, need for travel, funds (1)
- Limited access to instructors (1)
- No overnight conferences (1)
- Restrictions with the American Lung Assoc. paper compliance rules changing (1)

MISSING (16)

COMMENTS:

- I am going to the regional meeting in Sept and went to the info at the state meeting last spring
- Prefer to be able to use CDC training materials instead of ALA. We are investigating changing our facility protocol to allow CDC training. We are not an IDPH licensed facility.

MISSING (39)

4. Please rate the following TB training topics needed by yourself and/or your LHD. For each topic and group, indicate “1” for most important, “2” for important, and “3” for least important.

TOPIC	Most Important Least Important
Principles of TB control	(6/16.2%) (21/56.8%) (10/27.0%)
Diagnosis and clinical presentation of TB	(10/27.0%) (19/51.4%) (8/21.6%)
New guidelines for IGRA-- interferon gamma release assay	(24/64.9%) (9/24.3%) (4/10.8%)
TB laboratory methods	(17/45.9%) (16/43.2%) (4/10.8%)
Treatment of TB disease	(11/29.7%) (19/51.4%) (7/8.9%)
Treatment of latent TB infection	(10/27.0%) (16/43.2%) (11/29.7%)
Principles of TB case management	(16/43.2%) (15/40.5%) (6/16.2%)
Adherence challenges/DOT	(11/29.7%) (19/51.4%) (7/18.9%)
Legal issues	(15/41.7%) (17/47.2%) (4/11.1%)
Outbreaks	(15/40.5%) (16/43.2%) (6/16.2%)
TB contact investigation principles and methods	(9/24.3%) (23/62.2%) (5/13.5%)
Interviewing skills	(8/21.6%) (17/45.9%) (12/32.4%)
TB screening programs	(11/29.7%) (14/37.8%) (12/32.4%)
Confidentiality	(8/22.2%) (17/47.2%) (11/30.6%)
Patient education	(7/19.4%) (23/63.9%) (6/16.7%)
Cultural competency skills	(7/18.9%) (20/54.1%) (10/27.0%)
Documentation	(8/21.6%) (19/51.4%) (10/27.0%)
Quality assurance	(10/27.0%) (15/40.5%) (12/32.4%)
Working with private providers	(11/29.7%) (16/43.2%) (10/27.0%)

Developing community outreach/partnerships	(11/29.7%) (18\48.6%) (8/21.6%)
Other (please describe)	(3/37.5%) (3/37.5%) (2/25.0%)

Other (please describe)

- Treatment if not using 4 drug therapy
- Nutritional needs of active TB patients
- I have some training, but I have other staff who are not.
- Copies of Indiana health departments TB testing does not record lot#, date and time given, date and time read consistently. Also readings often say "neg" not 0mm induration

MISSING (4)

5. What is your greatest current TB training need? Why?

- Working with private providers (2)

Variations of above answer:

- How to work with private physicians because in a low incidence area such as ours, our TB cases are diagnosed after 6-12 mos of coughing and multiple healthcare visits at multiple healthcare sites because no one "Thinks TB"
- **Updates (4)**

Variations of above answer:

- Updates to any new diagnostic tools
- Newest information-we receive a lot of questions on IGRA and I don't feel like I know enough to answer all questions coming in. Test is not something we do but I need to understand it better.
- New screening and ISDH guidelines for treatment. So I will be comfortable education local doctors and the public related to current TB concerns.
- I just took the ALA course today (1)
- Training on the new lab techniques/methods and testing so we can better interpret the data given us. (1)

- Probably diagnosis and treatment needs of TB for high-risk groups--there is a large Hispanic population in Newton County (1)
- Helping the patient through treatment as a clinical case when there is no concrete lab reports to confirm they are a case. (Especially when the treatment goes on for a year.) Understanding the case well enough to encourage the patient even when there does not seem to be any improvement, or at least very little. (1)
- Different cultures and languages (1)
- More employees, more tax dollars (1)
- Personally, quality assurance because I am the program coordinator and new to the position. As a department, case management- nurses are generalists and don't all do TB often (1)
- Time (2)

Variations of above answer:

- Do not have the time to do an effective job
- Initiating an Active TB case (1)
- How to best find resources to assist my TB patients and legal issues surrounding TB quarantine. (1)
- Compliance with reading testing 48-72 hours after the test is given. (1)

MISSING (23)

6. Do you prefer having a TB Update Regional Meeting only or would you like to have your meeting combined with other topics (i.e. immunizations)?

- No (1)
- Either (3)

Variations of above answer:

- No preference and both are good - other topics are always an educational experience
- Combined (9)

Variations of above answer:

- Combined is usually enough unless there are lots of changes or updates.

- Combined with other topics
- We prefer having a combined meeting as the distance is a major hindrance and splitting up the meetings results in our office being closed more than one or two days. It is particularly difficult in the fall when back to school and flu vaccine clinics are in full swing.
- If there is not a lot of new information to share and adding some other topics might bring some nurses that might not otherwise plan to attend
- Maybe have one day on immunization updates and one day on TB updates
- Other topics
- **TB Regional Meeting only (19)**

Variations of above answer:

- I like the idea of having a day to just learn about TB
- Regional. No, just TB. We need to stick to the task at hand. If you get a group of nurses together with an open agenda, who knows where it will lead. Need to stick to topic. I cannot host
- I usually don't attend the TB meetings if they are combined with other topics, because I feel like they are geared to the PHN with no experience with TB, and there is a need for that. I like the Regional TB meeting to discuss what is new and be more in depth.
- Not really

MISSING (8)

7. Please indicate your level of preference for receiving TB training and education for each of the training methods listed below. ***(Select a number from one to five with "1" being not preferred and "5" being most preferred)***

	Not preferred			Most preferred	
In-person classroom training/workshop	(3/8.1%)	(1/2.7%)	(11/29.7%)	(9/24.3%)	(13/35.1%)
Meeting/conference (regional or state)	(2/5.4%)	(4/10.8%)	(2/5.4%)	(11/29.7%)	(18/48.6%)
Meeting/conference (national)	(20/54.1%)	(7/18.9%)	(3/8.1%)	(3/8.1%)	(4/10.8%)

Self-study (via computer or print materials)	(6/16.2%)	(5/13.5%)	(9/24.3%)	(6/16.2%)	(11/29.7%)
Interactive online course	(6/16.2%)	(7/18.9%)	(7/18.9%)	(5/13.5%)	(12/32.4%)
Live or archived web-based seminar (“webinars”)	(4/10.8%)	(8/21.6%)	(5/13.5%)	(8/21.6%)	(12/32.4%)
CD-ROM educational product	(6/16.7%)	(5/13.9%)	(5/13.9%)	(14/38.9%)	(6/16.7%)
Instructional video/DVD	(6/16.2%)	(5/13.5%)	(7/18.9%)	(12/32.4%)	(7/18.9%)
Videoconferences (audio and video)	(6/16.7%)	(4/11.1%)	(9/25.0%)	(8/22.2%)	(9/25.0%)
Teleconference (audio only)	(8/22.2%)	(9/25.0%)	(5/13.9%)	(7/19.4%)	(7/19.4%)
Other (please describe):	(2/66.7%)	(0/0.0%)	(0/0.0%)	(1/33.3%)	(0/0.0%)

MISSING (4)

COMMENTS:

- In person trainings are best as we have difficulty getting away from the phone and other interferences as our phone/computer/video equipment is in the same area as our office and clinic space

MISSING (40)

8. If a day of workshop was offered what topic(s) would you like to see covered?

- Overview of TB (2)
- **Updates (6)**

Variations of above answer:

- New updates
- New and updated information that could be a quick review of what ISDH wants us all to be doing.
- New guidelines for IGRA
- Updates on MTB, what other counties are doing

- Updates on diagnostic testing/IGRA's.
- Refugees (1)
- Treatment and testing (2)

Variations of above answer:

- New TB screening and current treatment options
- New laboratory and testing methods
- TB amongst high-risk groups, how to properly read and get treatment, best ways to monitor treatment, etc. (1)
- Legal issues for noncompliance... where do we begin and what steps do we take? (1)
- Treatment of clinical cases without concrete lab reports... especially if no improvement... had no symptoms but had something the doctor saw on chest x-ray... and not using the usual 4 drug treatment which creates side effects from other drug regimens... dealing with this whole picture. (1)
- Confidentiality in contact investigations. How do you convince someone to be tested when they don't believe they have been exposed? (1)
- Cultural differences (1)
- TB (1)
- Ways to keep TB in the differential diagnosis of cough for community physicians so that diagnosis is not so delayed (1)
- TB outbreaks (2)

Variation of above answer:

- Case management of outbreaks... how can we plan for this?
- Guidelines for interruption in Latent TB Medication Therapy
- Legal issues (2)
- How to manage the complicated TB patient. We all know there is more to TB than just giving DOT.
- IGRA (1)

- Contact investigation (1)

MISSING (24)

9. Please add anything else that would be useful for us to know concerning TB training needs for your LHD.

- Answer questions like how often do we need to have the TB certifications done? How often for other healthcare providers. Many HCP in our community are reading TB tests and are not certified.
- Currently having cultural problems and importance of DOT for them
- Jail related case info and treatment
- I am so very thankful that my Regional TB nurse is always so accessible. She has really taught me a lot.
- I am representing a state hospital not a LHD- in case that makes a difference!
- Monroe County Public Health Clinic (MCPHC) will need additional training because I've just transferred to another area.

MISSING (35)